CLAIMS

1. A method of determining susceptibility of a patient to developing a chronic ulcer, comprising determining the polymorphism type of the patient in genes that encode inflammatory cytokines.

2. A method of predicting the severity of a chronic ulcer in a patient comprising determining the polymorphism type of the patient in genes that encode inflammatory cytokines.

3. A method of predicting the healing response in a chronic ulcer in a patient comprising determining the polymorphism type of the patient for inflammatory cytokines.

4. A method according to any one of claims 1 to 3, wherein the chronic ulcer is a dermal ulcer.

5. A method according to claim 4, wherein the dermal ulcer is selected from the group consisting of venous ulcers, pressure sores and decubitis ulcers.

6. A method according to any one of claims 1 to 5 wherein the method is carried out *in vitro*.

7. A method according to any one of the previous claims wherein the inflammatory cytokine comprises any one of interleukin 1, interleukin 6, interleukin 8 and tumour necrosis factor alpha.

8. The method according to claim 7, wherein the inflammatory cytokine comprises either of interleukin 1 or tumour necrosis factor alpha.

9. A method according to claim 8, wherein the presence of the +3953IL-1B polymorphism is diagnostic or prognostic for chronic ulcers.

10. A method according to claim 8, wherein the presence of the IL-1A -889 polymorphism is diagnostic or prognostic for chronic ulcers.

11. A method according to claim 8, wherein the presence of the +3953 IL-1B and the IL-1A -889 polymorphisms is diagnostic or prognostic for chronic ulcers.

12. The method of any preceding claim wherein the analysis is carried out by:

(a) digesting genomic DNA from a patient to a diagnostic fragment length;

(b) probing the DNA fragment with a probe specific for a polymorphism type, and

(c) detecting the bound probe.

13. The method of any one of claims 1 to 11, comprising the following steps:

(a) amplifying a diagnostic length DNA fragment of an inflammatory cytokine from DNA samples isolated from patients,

(b) probing the amplified DNA sample with a probe specific for an inflammatory cytokine polymorphism type and

(c) detecting the bound probe.

14. The method of any one of claims 1 to 11, comprising the following steps:

(a) amplifying a diagnostic length DNA fragment of the gene encoding an inflammatory cytokine from DNA samples isolated from patients,

(b) performing a second (nested) amplification to produce greater quantities of specific DNA, and

(c) sequencing the amplified DNA fragment in order to analyse the precise polymorphism type of the gene.

15. The method according to any one of claims 12 to 14 wherein the patient DNA is prepared from a blood sample.

16. The method according to either of claims 12 or 13, wherein the probe is detected using chemiluminescence.

17. The method according to either of claims 12 or 13, wherein the probe is detected by autoradiography.

18. Use of polymorphism typing for inflammatory cytokines in a method of determining susceptibility to, predicting the severity of and/or healing response of chronic ulcers in a patient.

19. Use according to claim 18, wherein said patient is a human patient.

20. A diagnostic kit for use in accordance with any one of the methods of previous claims 1-15 comprising a thermostable DNA polymerase enzyme, specific primers that are complementary to a gene encoding an inflammatory cytokine, ATP, mixed nucleotide units for extension of the nucleotide chain, and fluorescent-labelled dideoxynucleotide termination products.

21. A diagnostic kit for use in accordance with any one of the methods of claims 1-15 comprising a thermostable DNA polymerase enzyme, specific primers that are complementary to a gene encoding an inflammatory cytokine, ATP, mixed nucleotide units for extension of the nucleotide chain, a restriction enzyme

associated with a polymorphism associated with a gene encoding an inflammatory cytokine, a specific probe and concentrated forms of reagents and buffers useful in hybridisation, pre-hybridisation and DNA extraction.